What is Claimed is:

1. A cleaning container for chemically cleaning elongated members comprising:

a first body member and a second body member said first body member and second body member respectively forming a first containing space and a second containing space including a first means for reversibly compressively sealing the first body member and the second body member to a form a combined containing space for sealably holding a cleaning solution level;

a cap member disposed at a distal end of the first body member said cap member including a second means for reversibly compressively sealing a first opening in communication with the first containing space; and

a second opening centrally disposed in a distal end of the second containing space said second opening including a third means for reversibly compressively sealing around at least one elongated member penetrating through said second opening.

- 2. The cleaning container of claim 1, wherein, the combined containing space forms a sealably closed hollow cylindrical shape.
- 3. The cleaning container of claim 1, wherein the first, second and third means for reversibly compressively sealing include at least one of a threading means and a clamping means.
- 4. The cleaning container of claim 3, wherein the threading means and the clamping means include a means for deformably compressing an O-ring to form a liquid tight seal.
- 5. The cleaning container of claim 2, wherein an axial dimension of the sealably closed hollow cylindrical shape is greater than a radial dimension.
- 6. The cleaning container of claim 2, wherein the axial dimension is sufficient to accommodate a length of the at least one elongated member to include at least one thermocouple sleeve.

- 7. The cleaning container of claim 1, wherein the second opening is a cylindrical opening of sufficient diameter to accommodate at one time a plurality of the at least one elongated member including about 6 to about 10 thermocouple sleeves.
- 8. The cleaning container of claim 1, wherein the third means for reversibly compressively sealing includes an inner compression sleeve and an outer compression sleeve for deformably compressing an O-ring to seal around the at least one elongated member to include at least one thermocouple sleeve.
- 9. The cleaning container of claim 1, wherein the at least one elongated member includes at least one thermocouple sleeve including a plurality thermocouple wires extending from the at least one thermocouple sleeve.
- 10. The cleaning container of claim 1, wherein the cleaning solution level covers a height of the at least one elongated member to include at least one thermocouple sleeve.

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- 11. The cleaning container of claim 1, wherein at least the combined containing space is formed of a chemically resistant material including a resistance to hydrofluoric acid (HF).
- 12. A method for cleaning thermocouple sleeves comprising the steps of:

providing a plurality of thermocouple sleeves including a plurality of trailing thermocouple wires for cleaning;

providing a cleaning container including at least a first sealing means such that at least a portion of each of the plurality of thermocouple sleeves sealably penetrates through the cleaning container to contact a cleaning solution contained in said cleaning container;

sealably penetrating the cleaning container with the plurality of thermocouple sleeves to form a plurality of sealably penetrating portions of the plurality of thermocouple sleeves; and

providing the cleaning solution contained in the cleaning container to clean the plurality of thermocouple sleeves.

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- 13. The method of claim 12, wherein the step of sealably penetrating includes the at least a first sealing means forming a liquid tight seal around the plurality of trailing thermocouple wires.
- 14. The method of claim 12, wherein the cleaning container includes a second sealing means whereby the cleaning container may be separated into 2 containing parts said second sealing means forming a liquid tight seal at a mating interface of the 2 containing parts.
- 15. The method of claim 14, wherein at least one of the 2 containing parts is sized to contain a cleaning solution level for covering the plurality of the sealably penetrating portions.
- 16. The method of claim 12, wherein the plurality of thermocouple sleeves includes a plurality of from about 4 to about 10.

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- 17. The method of claim 12, wherein the cleaning solution includes at least hydrofluoric acid (HF).
- 18. The method of claim 12, wherein at least a containing portion of the cleaning container includes a corrosion resistant material including a resistance to hydrofluoric acid (HF).
- 19. The method of claim 18, wherein the corrosion resistant material includes at least one of polyethylene and polypropylene.
- 20. The method of claim 1, wherein the cleaning container includes a sealable cap at an end of the container distal from the at least a first sealing means for adding and removing a cleaning solution.